

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (PREVIOUSLY PRESENTED) A linear equalizer for a single carrier receiver, comprising:

a channel estimation unit estimating channel estimation values using a received signal inputted thereto and a generated field synchronizing signal;

a filter unit initializing coefficients of filters based on the channel estimation values and filtering a pre-ghost and a post-ghost of the received signal;

an error calculation unit calculating an equalization error using an output signal from said filter unit; and

a decision unit deciding a signal level for an output signal from said filter unit,

wherein said channel estimation unit includes:

a correlation cumulation unit calculating and cumulating correlation values between the received signal and the field synchronizing signal; and

an estimation decision unit deciding the channel estimation values by applying an adaptive threshold value or a fixed threshold value to the cumulated correlation values, and

said error calculation unit calculates the equalization error using an input signal to said decision unit and an output signal from said decision unit.

2. (ORIGINAL) The linear equalizer according to claim 1, wherein said filter unit updates the coefficients of the filters according to the equalization error and filters the pre-ghost and post-ghost using the updated coefficients of the filters.

3-4. (CANCELLED)

5. (PREVIOUSLY PRESENTED) The linear equalizer according to claim 1, wherein said error calculation unit calculates the equalization error using the output signal from said decision unit and the field synchronizing signal.

6-7. (CANCELLED)

8. (PREVIOUSLY PRESENTED) A decision feedback equalizer for a single carrier receiver, comprising:

- a channel estimation unit estimating a channel estimation value using a received signal inputted thereto and a generated field synchronizing signal;

- a feed forward (FF) unit initializing coefficients of a first filter based on the channel estimation value, and filtering a pre-ghost of the received signal;

- a feedback (FB) unit initializing coefficients of a second filter based on the channel estimation value, and filtering a post-ghost of the received signal;

- an error calculation unit calculating an equalization error using output signals from said FF and FB units;

- an adder adding the output signals from said FF and FB units to output a resulting signal;

and

- a decision unit deciding a signal level for the output signal from said adder and inputting the resulting signal of the predetermined level to said FB unit,

- wherein said channel estimation unit comprises:

- a correlation cumulation unit calculating and cumulating correlation values between the received signal and the field synchronizing signal; and

- an estimation decision unit deciding the channel estimation value by applying an adaptive threshold value or a fixed threshold value to the cumulated correlation values, and

- said error calculation unit calculates an equalization error using the input signal to said decision unit and the output signal of the predetermined level from said decision unit.

9. (ORIGINAL) The decision feedback equalizer according to claim 8, wherein said FF and FB units update the coefficients of the first and second filters, respectively, according to the equalization error and filter the pre-ghost and the post-ghost using the updated first and second filters.

10-11. (CANCELLED)

12. (PREVIOUSLY PRESENTED) The decision feedback equalizer according to claim 8, wherein said error calculation unit calculates the equalization error using the output signal from said adder and the field synchronizing signal.

13-24. (CANCELLED)